BKV Operating LLC Pennsylvania Business Unit

40 CFR 60 SUBPART OOOOa ANNUAL REPORT

REPORTING PERIOD:

8/3/2018 to 8/2/2019

Date Report Prepared:

October 2019

40 CFR 60 SUBPART OOOOa | ANNUAL REPORT

REPORTING PERIOD:

8/3/2018

to 8/2/2019

		General Info	rmation	
ompan	y Name: BKV Operating LLC			
-/		Mailing A	ddress	
treet:	12231 State Route 706			
ity:	Mondose	County:	Susquehanna	
tate:	Pennsylvania	Zip Code:	18801	
		Certifying	Official	
Vame:	Heather Woyer	Γitle:	Regulatory Manager	
Email:	heathermoyer@bkvoperating.com	Phone:	570-278-7450	
1.1		Report P	reparer	
Name:	Tieddict Moyer	Title:	Regulatory Manager	
Email:	Heathermoyer solv operating.	Phone:	570-278-7450	
	Affected Facilities		Included in this report?	
		flowbacks) d	perating LLC conducted well completion operations (i.e. luring the reporting period that were subject to the s of Subpart OOOOa.	
Centrif	ugal Compressors	No. BKV Operating LLC does not operate any centrifugal compressors.		
Recipro	ocating Compressors	compressors	perating LLC does not operate any reciprocating sthat are subject to Subpart OOOOa.	
Contin	uous Bleed Pneumatic Controllers	No. BKV O driven contr 6 scfh.	perating LLC does not use continuous bleed natural gas rollers that operate at a natural gas bleed rate greater than	
Natura Pumps	l Gas Driven Diaphragm Pneumatic	Yes. BKV C pneumatic j requiremen	Operating LLC did operate natural gas driven diaphragm pumps during the reporting period that are subject to the ts of Subpart OOOOa.	
Fugitiv	ve Emissions Components at Well Sites	Yes. BKV C period that	Operating LLC did operate well sites during the reporting are subject to the LDAR requirements of Subpart OOOOa	
Fugitiv	ve Emissions Components at ressor Stations	that are sub	Operating LLC does not operate any compressor stations operate to the LDAR requirements of Subpart OOOOa.	
Storag	ge Vessels	No. BKV C	Operating LLC does not operate any storage vessels that ar he requirements of Subpart OOOOa.	

Certification

I hereby certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Heather Mover	Regulatory Manager
Name of Certifying Official	Title
	10/22/2019
Signature of Certifying Official	Date signed

40 CFR 60 SUBPART OOOOa | ANNUAL REPORT REPORTING PERIOD: 8/3/2018 to 8/2/2019 Company Name: BKV Operating LLC Affected Facility: Wells

Allected Lacinty.		THE PERSON																If using combustion as	
Gas Well Affected	, è	API Well	1 3 5	= 8 °				Date and Time of Each Attempt to Direct Flowback to	Date and Time of Each Occurrence of Returning to Initial	Date and Time of	Description of End of Flowback (Well Shut In or Start of Production)	Flowback Duration	Disposition of Recovery	Duration of Recovery of Gas to the Flow Une (hrs)	Combustion Duration (hrs)	Venting Duration (hrs)	Primary Compliance Method		Are there deviations from g60.5375a? If Yes, detail below.
ion	Affected Facility Address 664 Bush Rd 1, Montrose, PA 18401	Number 37-115-20838	11.80609	-75.91980	Production	Cas	9/25/2018 11:00	9/26/2018/900	None	9/26/2018/900	Start of Production	ង	Routed to flow line (sales)	Immediate recovery of gas to sales after initial flowback	0	0	Reduced Emission Completion	N/A	3
Frystak Well Pad - Well 2H	os 4 Bush Rd L Montrose, PA 18801	37-115-20839	41.86612	-7591976	Production	Ç.	9/25/201811:00	9/25/2018 22:50	None	9/25/2018 22:50	Start of Production	12	Routed to flow line (sales)	Immediate recovery of gas to sales after initial flowback	c	0	Reduced Emission Completion	N/A	
Frystak Well Pad - Well 3H	064 Bush Rd 1, Montrose, PA 18801	37-115-2040	41.86614	-75.91972	Production	G.	9/25/201811:00	0056 8107/95/6	None	9/26/2018/900	Start of Production	z	Routed to flow line (sales)	Immediate recovery of gas to sales after initial flowback	0	o	Reduced Emission Completion	N/A	
Frystak Well Pad - Well 6H	664 Bush Rd L Montrose, PA 18801	37-115-20826	41.86623	-75.91960	Production	Cass	9/25/201813:00	9/27/1813:00	None	9/27/2018 13:00	Start of Production	ŧ	Routed to flow line (sales)	Immediate recovery of gas to sales after initial flowback	0	0	Reduced Emission Completion	N/A	
Frystak Well Pad - Well 8H	664 Bush Rd 1, Montrose, PA 18801	37-115-20939	41.86636	.7591945	Production	Cas	9/25/2018 14:00	9/27/201811:00	None	9/27/201811:00	Start of Production	ts	Routed to flow line (sales)	Inunediate recovery of gas to sales after initial flowback	o	0	Reduced Emission Completion	N/A	
Mirabelli Well Pad - Well Keystone 1H	43 Rails Road, Tunkhannock, PA 18657	37-131-20486	41.60411	-76,00543	Production	F	3/29/2019 6:00	3/30/20191240	None	3/30/20191240	Start of Production	v	Routed to flow line (sales)	Immediate recovery of gas to sales after initial flowback	0	0	Reduced Emission Completion	N/A	
Mirabelli Well Pad - Well Mirabelli 3H	43 Rails Road, Tunkhannock. PA 18657	37-131-20407	41.60411	-76.00549	Production	C as	4/15/20192200	4/16/20191600	None	4/16/20191600	Start of Production	116	Routed to flow line (sales)	Immediate recovery of gas to sales after initial flowback stage	0	0	Reduced Emission Completion	N/A	
P&G Warehouse Well Pad - Mirabelli 4H	P&C Warehouse Well 120 P&G Warehouse Way, Pad - Mirabelli 4H Tunkharnock, PA 18657	37-131-20534	41.60077	-76.01466	Production	Ē.	5/12/2019 18:00	5/14/20197:30 5/15/201910:15	5/15/2019 9:30	5/15/2019 10:15	Start of Production	21	Routed to flow line (sales)	Immediate recovery of gas to sales after initial flowback stage	0	0	Reduced Emission Completion	N/>	
P&G Warehouse Well Pad - 2H	PRG Warehouse Well 120 PRG Warehouse Way, Pad - 2H Tunkharnock, PA 1867	37-131-20535	41.60081	-76.01465	Production	Case	5/29/201914.05	5/29/2019 14/05	None	5/29/201914:05	Start of Production	0 No initial flowback stage; well opened directly to	Routed to flow line (sales)	Immediate recovery of gas to sales after initial flowback stage	0	0	Reduced Emission Completion	Z/>	
P&G Warehouse Well Pad - N&Carthy 2H	P&G Warehouse Well 120 P&G Warehouse Way, Pad - McCarthy 2H Tunkhannock, PA 18657	37-131-20536	41.60073	-76.01466	Production	Cas	5/29/2019 9:10	5/29/2019 11:55	None	5/29/2019 11:55	Start of Production	u	Routed to flow line (sales)	immediate recovery of gas to sales after imital flowback	0	0	Emission Completion	2/2	-177

Company Name: Affected Facility:

BKV Operating LLC Wells

		Gas Well Affected Facility Identification	Details of Exemptions or Deviations	Johnston Well Pad - 4 McCarthy 1H P	Johnston Well Pad - 46 Johnston 2H P	Gas Well Affected Facility Identification Affected Facility Address
	None	Detailed Inf	Deviations	407 Stanek Road, Meshoppen. 37.131-2674 PA 18630	407 Stanek Road, Meshoppen, 37-131-20573 PA 18630	offected Facility Address
		Detailed Information of Deviation or Exemption Claimed under 60.5375a(a)(3)		37.131-20574	37-131-20573	API Well Number
		viation or Ex		41.60742	41.60741	Latitude
		emption Clai		-76.02800	-76.02806	Longitude
		med under 6		-76.02800 Production	Production	Well Category
		0.53754(Ē.	Ę.	
)(3)		6/3/20191200	6/5/2017(820	Date and Time of Start of Flowback
_			_	6/4/2019 11300		Date and Time of Each Attempt to Direct Flowback to Separator
				None	No.	Date a Each C Return Flow
						E D

Start of Production

Reduced Emission Completion

N/A

No

Disposition to the Flow Line
of Recovery (Fig. 1)
of Recovery (Mr.)
Routed to Immediate
flow line recovery of gas Co.
(sales) Immediate
flow line recovery of gas
flow line servery of gas
flow line servery of gas
flow line recovery of gas
flow line recovery of gas
flow line recovery of gas
(sales) to sales after
intal flowback
stage

Combustion
Duration
(hrs)

Are there deviations from g60.5375a? If Yes, detail below.

40 CFR 60 SUBPART OOOOa | ANNUAL REPORT REPORTING PERIOD: 8/3/2018 to 8/2/2019 Company Name: 60 SUBPART OOOOa | ANNUAL REPORT 8/3/2018 Company Name: 60 Collection of Fugitive Em

Affected Facility:		Collection of Fugitiv	Collection of Fugitive Emissions Components at Well Sites	ns Componen	ts at Well Sit	3										-
Well Sie Affected	- 50	Date and Time of Start of	Date and Time	Name of Personnel Conducting	Years of Experience of Personnel Conducting	Fraining of Personnel	Monitoring Instrument Used (Make, Model,	Ambient Conditions (Temperature *F, Maximum Wind Speed, Sky	Number and Type	Number and Type of Fugitive Emissions Components Not Repaired per	Number and Type of Difficult-to- Monitor Equipment Monitored	Number and Type of Unaafe- to-Monitor Equipment	Date of Successful Repair of Leaking Component(s)	Instrument Used to Resurvey a Repaired Leaking Component that Could Not Be Repaired During the Initial Leak Detection Finding	Number and Type of Leaking Components Flaced on Delay of Repair List and Explanation for the Delay of Repair	Deviations from the Monitoring Plan or a Statement that there were No Deviations from the Monitoring
Ricci Well Pad	Facility Location 1084 Coleman Rd, Montrose, DA 19801	9/11/18 10:10	9/11/18 10:55	Melissa	6	FLIR Certified	FLIR GasFinder GF-320, S/N	Cloudy, Temp 69 F, Wind Speed 1 mph	1 - Connector 1 - PRV	0	0	0	Within 15 calendar days of	Bubble Method	0	None
P&G 4 Well Pad	5205 & 5207 State Route 87,	9/11/18 13:55	9/11/1814.25	(Montrose) Melissa Sullivan	6	FLIR Certified	FLIR GasFinder GF-320, S/N	Cloudy, Temp 69 F, Wind Speed 1 mph	0	N/N	0	0	N/A	N/A	N/A	None
	TURNSTHINGE, FO 1900			(Montrose)			44402189					0	Within 15	Bubble Method	0	None
Frystak Well Pad	664 Bush Rd 1, Montrose, PA 10/30/18 10:25 18801	10/30/18 10:25	10/30/181205	Victor Marrufo	22	FLIR Certified	FLIR GasFinder GF-320, S/N	Cloudy, Temp 35 F. Wind Speed 0.6 mph	4 - Valves	c	c	ć	calendar days of			
Mirabelli Well Pad	43 Rails Road, Tunkhannock, 10/30/1812:53 10/30/1814:45	10/30/181253	10/30/18 14:45	(Montrose) Victor	2	FLIR Certified	FLIR GasFinder	Cloudy, Temp 35 F.	1 - Valve	0	0	0	Within 15 calendar days of	Bubble Method	0	None
	PA 18657	99		Marrufo			44402189	udui an passis pura	7 - Collies mas				leak detection		o	None
chouse	120 P&G Warehouse Way,	10/30/18 15:00	10/30/1815:00 10/30/1815:50	Victor	2	FLIR Certified	FLIR GasFinder GF-320, S/N	Cloudy, Temp 35 F. Wind Speed 0.6 mph	1 - Valve	o	0	c	calendar days of	Difford Michigan		
WCH FAG	I HIDAMININA TO TOOL			(Montrose)			44402189		1			0	Within 15	Bubble Method	0	None
Johnston Well Pad	407 Stanek Road, Meshoppen, PA 18630	10/30/18 16:00	10/30/18 16:00 10/30/18 17:01	Victor Marrufo	2	FLIR Certified	GF-320, 5/N	Wind Speed 0.6 mph	1 - Connector				calendar days of leak detection	10		
Ricci Well Pad	ntrose.	1/17/1911:30	1/17/1912:19	(Montrose) Dale Cornetta	1	FLIR Certified	FLIR GasFinder	Cloudy, Temp 19.7 F,	1 - Connector	0	0	0	Within 15	N/A	0	None
				(CoyBalboni)			210509	Wind Speed 24 mpn					leak detection	inspection		
P&G 4 Well Pad	5205 & 5207 State Route 87, Tunkhannock, PA 18657	1/18/197:15	1/18/198:05	Dale Cornetta (CoyBalboni)	1	FLIR Certified	FLIR GasFinder GF-320, S/N	Cloudy, Temp 25 F, Wind Speed 1.7 mph	0	N/N	0	0	N/A	2/>	2/2	Mone
Frystak Well Pad	PA	4/9/1911:35	4/9/191225	Dale Cornetta (CoyBalboni)	2	FLIR Certified	FLIR GasFinder GF-320, S/N	Cloudy, Temp 57.4 F, Wind Speed 24 mph	1 - Valve	0	0	0	Within 15 calendar days of	Bubble Method	0	None
	1 agest						74900467		t				Within 15	N/A	0	None
Mirabelli Well Pad	43 Rails Road, Tunkhannock, 4/9/19 13:05 PA 18657	4/9/1913:05	4/9/1914.40	Dale Cornetta (CoyBalboni)	2	FLIR Certified	FLIR GasFinder GF-320, S/N 74900467	Cloudy, Temp 70.1 F, Wind Speed 5.5 mph	1 · Connector	0	0	o	calendar days of leak detection	Same day as inspection	, e	
Mirabelli Well Pad	43 Rails Road, Tunkhannock, 5/28/1915:15	5/28/1915:15	5/28/191630	Dale Cornetta	2	FLIR Certified	FLIR GasFinder GF-320, S/N	Cloudy, Temp 78.7 F, Wind Speed 3.1 mph	1 - Connector	0	0	0	Within 15 calendar days of	N/A Same day as	0	None
	PA 1860/			facilities from			74900467		T	N/A		0	leak detection	N/A nonxen	N/A	None
P&G Warehouse Well Pad	120 P&G Warehouse Way, Tunkhannock, PA 18657	7/1/1915.45	7/1/191640	Dale Cornetta (CoyBalboni)	2	FLIR Certified	FLIR GasFinder GF-320, S/N 74900467	Cloudy, Temp 82 6 F, Wind Speed 1.3 mph	0	2	c	c	14/15			None
Johnston Well Pad	407 Stanek Road, Meshopper, PA 18630	7/1/19 16:50	7/1/1917:30	Dale Cornetta (CoyBalboni)	2	FLIR Certified	FLIR GasFinder GF-320, S/N	Cloudy, Temp 83.3 F, Wind Speed 1.7 mph	1 - Valve	0	0	0	Within 15 calendar days of look detection	Same day as inspection	c	More
Ricci Well Pad	1096 Coleman Rd, Montrose, PA 18801	7/2/198.45	7/2/199:20	Dale Cornetta (CoyBalboni)	2	FLIR Certified	FLIR GasFinder GF-320, 5/N	Cloudy, Temp 64.1 F, Wind Speed 0.3 mph	0	N/A	0	0	N/A	N/A	N/A	None
P&G 4 Well Pad	5205 & 5207 State Route 87, Tunkhannock, PA 18657	7/2/19950	7/2/19 10:20	Dale Cornetta (CoyBalboni)	2	FLIR Certified	FLIR GasFinder GF-320, S/N	Cloudy, Temp 65.4 F, Wind Speed 1.7 mph	0	N/N	0	0	N/A	N/A	×/×	None

40 CFR 60 SUBPART OOOOa | ANNUAL REPORT REPORTING PERIOD: 8/3/2018 to 8/2/2019

Company Name: Affected Facility:

BKV Operating LLC Natural Gas Driven Pneumatic Pumps (Diaphragm)

Pump ID	Current Pump Location and	Was the pneumatic pump constructed, Current Pump Location and modified, or reconstructed during the reporting period?	Has the pneumatic pump affected facilit been previously reported under the pneumatic pump reported under the pneumatic pump reported condition occurred during this meet? [560.5420a(b)(8)(0)] reporting period? [560.5420a(b)(8)(0)]	- 4	Which condition does th Date Previously Reported pneumatic pump meet? [560.5420a(b)(8)(ii)] [560.5420a(b)(8)(ii)]	ñ	Did any deviations in cases where the pneumatic pump was not operated in compliance with the pneumatic pump meet? requirements specified in [560.5420a(b)(8)(ii)] [560.5393a7 [560.5420a(b)(8)(iii)]
Graco Pump D53388, HTP103	McConnell Well Pad 133 Dark Hollow Road Tunkhannock, PA 18657	No. Pump HTP103 was purchased in 2016 by A process is available on-site and BKV has No the previous owner and used at a different location. It was then moved to the McConnell \$60.593(b)(5), that it is technically Well Pad in October 2018 to replace a different infeasible to capture and route the pump of the same make/model that was removed in January 2018.	A process is available on-site and BKV has determined, in accordance with §60.5393(b)(5), that it is technically infeasible to capture and route the emissions to the process. There is no control device on-site.		N/A	N/A	No.
Graco Pump D53388, HTP104	Ruark Well Pad 5887 State Route 87 Tunkharnock, PA 18657	No. Pump HTP104 was purchased in 2016 by the previous owner and used at a different location. It was then moved to the Ruark Well glo.3593(b)(5), that it is technically Pad in October 2018 to eplace a different pump of the same make/ model that was removed in January 2018.	A process is available on-site and BKV has No determined, in accordance with 1 g60.3392(b)(5), that it is technically infeasible to capture and route the emissions to the process. There is no control device on-site.		N/A	N/A	Z ₀